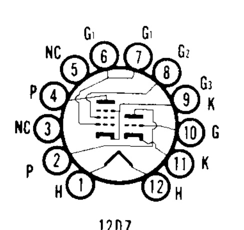
6LU8
16LU8, 21LU8

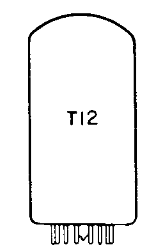
Color Television Type

VERTICAL DEFLECTION OSCILLATOR and AMPLIFIER

High Mu Triode and Beam Power Pentode

Construction ....Compactron T-12
Base ....Button 12 Pin, E12-74
Basing 12DZ
Outline 12-57
Maximum Diameter ....1.562 In.
Maximum Seated Height ....2.750 In.
Maximum Overall Height ......3.125 In.





ELECTRICAL DATA

HEATER OPERATION

	21LU8	16LU8	6LU8
Heater Voltage	21	15.8	6.3 Volts
Heater Current	450	600	1500 Ma
Heater Warm-up Time	11	11	— Seconds

Maximum Heater-Cathode Voltage

Heater Negative with Respect to Cathode	
Total DC and Peak	200 Volts
Heater Positive with Respect to Cathode	
DC	100 Volts
Total DC and Peak	200 Volts

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

Triode Section

Grid to Plate: tg to tp	6.0 Pf
Input: tg to (h + Tk)	7.0 Pf
Output: tp to (h + Tk)	2.0 Pf

Pentode Section

Grid No. 1 to Plate: pg1 to pp	0.5 Pf
Input: pg1 to (h + Pk + Pg2)	16 Pf
Output: pp to (h + Pk + Pg2)	9.0 Pf

Coupling

Pentode Grid No. 1 to Triode Plate (Max.)	0.13 Pf
Pentode Plate to Triode Plate (Max.)	0.40 Pf

RATINGS (Design Maximum Rating System)

Vertical Deflection Oscillator and Amplifier(1)

	Triode Osc.	Pentode Amp.
Plate Voltage (Max.)	400	400 Volts
Grid No. 2 Voltage (Max.)	—	300 Volts
Peak Positive Pulse Plate Voltage (Max.)	—	2500 Volts
Peak Negative Grid No. 1 Voltage (Max.)	400	250 Volts
Plate Dissipation (Max.)(2)	2.5	14 Watts
Grid No. 2 Dissipation (Max.)	—	2.75 Watts
Average Cathode Current (Max.)	30	75 Ma
Peak Cathode Current (Max.)	105	260 Ma
Grid Circuit Resistance		
Self Bias (Max.)	2.2	2.2 Megohms
Fixed Bias (Max.)	—	1.0 Megohm
Bulb Temperature (Max.)	—	210 °C

CHARACTERISTICS AND TYPICAL OPERATION

	Triode Section	Pentode Section
Plate Voltage	250	135 Volts
Grid No. 2 Voltage	—	120 Volts
Grid No. 1 Voltage	–4	–10 Volts
Plate Current	2.3	56 Ma
Grid No. 2 Current	—	3 Ma
Transconductance	3600	9300 μmhos
Amplification Factor	58	6.5(3)
Plate Resistance (Approx.)	16,000	12,000 Ohms
Ec for Ib = 10 μa	–6.6	— Volts
Ec for Ib = 1 Ma (Approx.)	—	–26 Volts
Ec for Ib = 100 μa	—	–30 Volts

INSTANTANEOUS PLATE KNEE VALUES

Eb = 45 V; Ec2 = 125 V; and Ec = 0 V
Ib = 200 Ma, and Ic2 = 20 Ma